

August 17, 2009
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[This is the beginning of an online, personal memoir of the nuclear era, "The American Doomsday Machine." It recounts and draws upon my six years of research and consulting for the Departments of Defense and State and the White House on issues of nuclear command and control, war planning, and crises and—following eleven years of preoccupation with the Vietnam war—34 subsequent years of research and activism largely on nuclear policy. Subsequent installments will appear, like this one, on truthdig.com and other sites, and on my website, www.ellsberg.net.]

American Planning for a Hundred Holocausts

One day in the spring of 1961, soon after my thirtieth birthday, I was shown how our world would end. Not the earth, not—so far as I knew then, or for the next twenty years--all humanity or life, but the destruction of most cities and people in the Northern Hemisphere.

What I was handed, in a White House office, was a single sheet of paper with some numbers and lines on it. It was headed "Top Secret—Sensitive"; under that, "For the President's Eyes Only."

The "Eyes Only" designation meant that, in principle, it was to be seen and read only by the person to whom it was explicitly addressed, in this case the president. In practice this usually meant that it would be seen by one or more secretaries and assistants as well: a handful of people, sometimes somewhat more, instead of the scores to hundreds who would normally see copies of a "Top Secret—Sensitive" document.

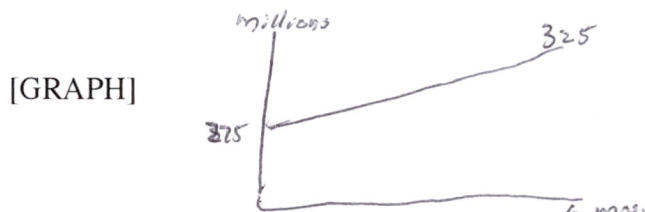
Later, working in the Pentagon as the Special Assistant to the Assistant Secretary of Defense, I often found myself reading copies of cables and memos marked Eyes Only for someone, though I was not that addressee, nor for that matter was my boss. And already by the time I read this one, as a consultant to the Office of the Secretary of Defense, it was routine for me to read Top Secret documents. But I had never before seen one marked "For the President's Eyes Only," and I never did again.

The Deputy Assistant to the President for National Security, my friend and colleague Bob Komer, showed it to me. A cover sheet identified it as the answer to President Kennedy of a question he had addressed to the Joint Chiefs of Staff a week earlier. Komer showed it to me because I had drafted the question, which Komer had sent in the president's name.

The question to the JCS was: "If your plans for general [nuclear] war are carried out as planned, how many people will be killed in the Soviet Union and China?"

Their answer was in the form of a graph. The vertical axis was the number of deaths, in millions. The horizontal axis was time, indicated in months. The graph was a straight line, starting at time zero on the horizontal—on the vertical axis, the number of immediate deaths expected within hours of our attack—and slanting upwards to a maximum at six months, an arbitrary cut-off for the deaths that would accumulate over time from initial injuries and from fall-out radiation.

The lowest number, at the left of the graph, was 275 million deaths. The number at the right-hand side, at six months, was 325 million.



That same morning, with Komer's approval, I drafted another question to be sent to the Chiefs over the president's signature, asking for a total break-down of global deaths from our own attacks, to include not only the whole Sino-Soviet bloc but all other countries that would be affected by fall-out. Again their answer was prompt. Komer showed it to me about a week later, this time in the form of a table, with explanatory foot-notes.

In sum, another hundred million deaths, roughly, were predicted in East Europe. There might be a hundred million more from fall-out in West Europe, depending on which way the wind blew (a matter, largely, of the season). Regardless of season, another hundred million deaths, at least, from fall-out in countries adjacent to the Soviet Bloc and China, most of them neutral: Finland, Austria, Afghanistan, India, Japan and others. Finland, for example, would be wiped out by fall-out from U.S. ground-burst explosions on the Soviet submarine pens at Leningrad. (Total casualties—injured as well as killed—had not been asked and were not estimated; nor were casualties from any Soviet retaliatory strikes.)

The total death-toll as calculated by the Joint Chiefs, from a US first strike aimed primarily at the Soviet Union and China, would be roughly six hundred million dead. A hundred Holocausts.

I remember what I thought when I held the single sheet with the graph on it. I thought, this piece of paper should not exist. It should never have existed. Not in America. Not anywhere, ever. It depicted evil beyond any human project that had ever existed. There should be nothing on earth, nothing real, that it referred to.

But there was, all right. I knew what it dealt with was real. I had seen some of the bombs myself, Mark 12A H-bombs with an explosive yield each of 1.1 megatons—equivalent to 1.1 million tons of high explosive, each bomb half the total explosive power of all the bombs of World War II-- slung under single-pilot F-100 fighter-bombers on alert at Kadena airbase on Okinawa, ready to take off on ten minutes notice. On one

occasion I had laid my hand on one of these, not yet loaded on a plane. On a cool day, the smooth metallic surface of the bomb was warm, from the radiation within: a body-like warmth.

At Kadena, the pilots weren't in the alert planes or in the hut on the strip; they were allowed to be elsewhere, at the PX or in their quarters, each with his individual jeep and driver, because they practiced the alert at least once a day. The officer in charge told our research group, which was there to study and improve nuclear command and control for the Commander in Chief of the Pacific Command (CINCPAC), that we could choose the time for that day's rehearsal. When our leader said, later, "OK, now," the klaxons sounded all over the area and jeeps appeared almost instantly on all the roads leading to the strip, rushing around curves, pilots leaping out as they reached the strip and scrambling into the cockpits, still tightening their helmets and gear. Engines started in ten planes, almost simultaneously. Ten minutes.

They didn't taxi or take off, as Strategic Air Command (SAC) heavy bombers did in their daily rehearsal (their crews stayed on the landing strip throughout their watch), because these Mark-12A thermonuclear weapons were not designed to be slung outside a tactical plane like the F-100 without a bomb-bay. They weren't safe enough. If the planes taxied down the runway every day in practice, and one plane collided with another or had some other mishap that led to an impact involving a bomb, the high explosive inside it had a small chance of exploding, spreading radioactivity. There might even have been a partial nuclear detonation, on the scale of the Hiroshima explosion, though the chance of that was still smaller. So the pilots just revved their engines in place, to meet the ten-minute deadline.

These were tactical fighter-bombers, with limited range. There were more than a thousand of them in range of Russia and China, armed with H-bombs, on strips like this or on aircraft carriers surrounding the Sino-Soviet Bloc (as we still thought of it in 1961, though China and the Soviets had actually split apart a couple of years before that). Each of them could devastate a large city with one bomb. For a larger metropolitan area, it might take two. Yet SAC, which did not command these planes (they were under the control of theater commanders), regarded these tactical, theater forces as so vulnerable, unreliable and insignificant as a factor in all-out nuclear war that SAC planners had not until this year included them at all in their calculations of the outcome of attacks in a general war. (It wasn't clear whether the effects of their attacks were yet included in the 600 million death calculation: perhaps not.)

Before this year, planners at the Joint Strategic Target Planning Section at SAC headquarters counted for deterrence and war-fighting only on the attacks by the heavy bombers and ICBMs commanded by SAC, along with Polaris sub-launched missiles. In the bomb-bays of the SAC planes were thermonuclear bombs much larger than the Mark-12s I saw in Okinawa. Many were five or ten megatons in yield. A relative few had the explosive power of twenty megatons, or somewhat higher. Each of these was the equivalent of twenty million tons of TNT--ten times the total tonnage we dropped in

World War II--more ^{explosive} power in each warhead than all the bombs and shells exploded in all the wars of human history.

These intercontinental bombers and missiles had come to be stationed almost entirely in the continental US, though they might be deployed to forward bases outside it in a crisis. A small force of B-52's was constantly airborne. Many of the rest were on alert. I had seen a classified film of an incredible maneuver in which a column of B-58's—smaller than B-52's but still intercontinental heavy bombers—taxied down a runway and then took off simultaneously, rather than one at a time. The point—as at Kadena and elsewhere--was to get in the air and away from the field as fast as possible, on warning of an imminent attack, before an enemy missile might arrive.

In the film these heavy bombers, each big as an airliner, sped up in tandem as they raced down the airstrip, one behind the other so close that if one had slackened its pace for an instant the plane behind, with its full fuel load and its multiple thermonuclear weapons, would have rammed into its tail. Then they lifted together, like a flock of birds startled by a gunshot. It was an astonishing sight; it was beautiful.

In the time it would normally have taken for a single plane to take off, a squadron of planes would be airborne, on their way to their pre-assigned targets. The preplanned targets for the whole force included, along with military sites, every city in the Soviet Union and China.

On carriers, smaller, tactical bombers would be boosted on takeoff by a catapult, a kind of large slingshot. But since the general nuclear war-plan, as I knew, called for takeoff around the world of as many U.S. planes and missiles as were ready at the time of the execute order--as near-simultaneously as possible--to attack targets that were all assigned in prior planning, the preparations contemplated one overall, preplanned and inflexible global attack as if the vehicles with their warheads were launched by a single catapult. As if David had flung all four of his smooth stones--now, more than three thousand--at one time from his sling.

The rigidity of the single, coordinated plan--which by 1961 included tactical bombers--in what was termed the Single Integrated Operational Plan, or SIOP [link to my SIOP clearance document], meant that its underlying "strategy" amounted to nothing more than a vast trucking operation to transport thermonuclear warheads to Soviet and Chinese cities and military sites. The latter were the great majority of targets, since all the cities could be destroyed by a small fraction of the attacking vehicles.

One of the principal expected effects of this plan—partly intended, partly (in allied, neutral and "satellite" countries) "collateral damage" but unavoidable--was summarized on the piece of paper I held that day in the spring of 1961: the extermination of over half a billion people.

I believed then that the predominant intent of this planning and deployment and rehearsals was to deter Soviet aggression. I did know by this time something that was not

always clear to the American public, that its declared intent was to deter not only nuclear attacks by the Soviets, but large conventional, non-nuclear aggression in Europe. In both cases, the story went, it was all designed to prevent such Soviet attacks from ever taking place. This global machine had been constructed in hopes that it would never be set in motion: so that, it was often said, it would never be used. The official motto of SAC, on display at all its bases, was "Peace Is Our Profession."

To be sure, I already knew, perhaps better than any other civilian, how the machine might go off "by accident": by false alarm, miscalculation, miscommunication, or unauthorized action. Studying that, in the field, was my special mission in the study for CINCPAC, and later as a specialist in "command and control" of nuclear weapons.

Moreover, I had learned in the Pacific one of the most sensitive secrets in the system: that to forestall the possibility that our retaliatory response might be paralyzed either by a Soviet attack on Washington or by presidential incapacity, President Eisenhower had as of 1958 secretly delegated to theater commanders the authority to launch nuclear operations in a crisis, either in the event of the physical unavailability of the president--Eisenhower himself had suffered both a stroke and a heart attack in office--or if communications were cut off with Washington.

I had also learned that CINCPAC, at least, had likewise delegated that authority downward in his command, under like conditions. That put many fingers on the button if communications went out between Washington and Hawaii, or Hawaii and the Western Pacific. In those years that outage occurred for each of these links, on average, once a day, for part of every day. It magnified greatly the possibilities listed above for "inadvertent, accidental" nuclear war, especially when it occurred during a nuclear crisis such as the Taiwan Straits (Quemoy) crisis of 1958.

I had informed the incoming Special Assistant to the President for National Security, McGeorge Bundy, of both of these closely-held facts, among other things, in a briefing in the White House in January, 1961. (The response of the Kennedy Administration is discussed in the next article in this series.) That briefing, arranged by the Office of the Assistant Secretary of Defense (International Security Affairs), was in part the reason I was in a position to draft questions for the White House soon after.

Moreover, it was a commonplace in the circles where I worked that although deterrence was the principal objective of our nuclear posture, including this plan, deterrence was not foolproof. It might fail. That applied both to deterrence of Soviet nuclear surprise attack and to deterrence of an overwhelming Soviet conventional attack in Europe. In either case, it was not impossible that the Soviets would attack despite our best efforts to dissuade them. What to do then was a subject for highly classified discussion. On this point the official plans were unequivocal, simple in intent: the demolition of the Sino-Soviet Bloc.

A striking, highly secret characteristic of the existing plans was that they called for essentially the same strategic response and targeting list for each of three quite distinct ways in which general war might come about.

One was US escalation of a conventional conflict with Soviet forces: a US first-strike against the Sino-Soviet Bloc. Second was a “preemptive” US attack in anticipation of an imminent Soviet nuclear attack on the US homeland. This too would be a form of US first strike, with its size and coverage depending on the amount available of strategic or tactical warning (the latter from radar or infra-red satellites) of the impending Soviet attack. Third was a hypothetical worst case, a successful Soviet surprise attack providing little or no tactical warning, destroying most non-alert US forces and possibly some of the alert force.

The third contingency was regarded by the Joint Chiefs as the least likely, though it dominated public discussion and had a disproportionate influence on planning, as a worst case. SAC in particular, and the Chiefs as well, planned and expected—if the Soviets moved toward a nuclear attack on the US—to have sufficient warning to launch a preemptive attack before any (or at worst, more than a few) Soviet warheads landed on targets, and preferably before any or many of the Soviet weapons had actually been launched.

Although the size of the US force available for attack would be different in each of these cases—from the entire operational USAF/Navy nuclear force in the first instance (escalation from an existing conventional conflict) down to the alert force, or less, in the third, the plans called for the same target list to be struck, to the extent feasible, in all cases. The circumstances, by determining the size of the force, would influence only the amount of coverage of the whole list. And in all three cases, the major cities of the Soviet Union and China were high on the list for initial, simultaneous missile attacks, and for subsequent coverage by bombers, along with the highest-priority Soviet missile sites, air-bases and command centers.

How this focus on an “optimum mix” of population and military targets for initial attack in all contingencies (see [link](#) my top secret notes on NESC Study 2009) had come about and the strong criticisms of it by some analysts including me, will be discussed in later articles. But both before and after the completion of SIOP-62 it was possible to discuss heretical alternatives.

↳ mousetrap

For some years, colleagues at the RAND Corporation and some planners in the Air Force staff had proposed instead a focus, if deterrence failed, not on revenge or on the extermination of civilians but on limiting subsequent damage to the U.S. In particular—either in the case of US first-strike escalation of a conventional conflict to a first strike on the Soviet Union, or in preempting an imminent Soviet first strike—this meant attacking only offensive military targets rather than cities, while preserving reserve forces under high-level command. There would still be massive “collateral damage” to civilians from attacks near cities and from fall-out, though radically less than in the existing plans.

Earlier in the spring of 1961, I had drafted guidance for the general war plans—issued, without change, to the JCS by Secretary of Defense McNamara ~~[link to my guidance]~~ -- that had incorporated this alternative, and my guidance went beyond earlier thinking in two respects. First, if initial conventional attacks had involved only Soviet and Warsaw Pact forces I proposed the “option” of excluding attacks on China from our pre-planned escalation. (That might seem self-evident, but I was one of very few civilians who was aware from my work for CINCPAC that no existing contingency or operational plan allowed for such an exclusion. It was another secret on which I briefed McGeorge Bundy in January, along with existence of delegation and the predominant focus on first-strike planning.)

And second, even for the worst, least likely, case of successful Soviet surprise attack, I proposed the same “no-cities” option for initial retaliation, along with retention of large forces held in reserve. (The reasoning behind this draft guidance—along with the full document, which has now mostly but not entirely been declassified--will be discussed in a later article.) I knew that nothing could have been further from the minds of the JCS or official US decision-makers over the last generation, and that it would be an uphill fight to get it implemented even if the Secretary endorsed it.

As it happens, I had drafted the question about estimated deaths from execution of the general war plans in the belief that the JCS did not know an answer to it. Officers I worked with in the planning staff of the Air Force were convinced that no one, either in the Joint Staff or the Air Staff, had ever calculated the overall human consequences of carrying out their plans. That encouraged me to ask them in the name of a higher authority for an estimate, in the expectation they would be embarrassed by having to admit their ignorance. (I deliberately limited the question, initially, to effects in the Soviet Union and China alone, instead of worldwide or the Sino-Soviet Bloc, to keep the Joint Staff from disguising their lack of any estimates at all by pleading a need for time to calculate casualties, say, in Albania, or the Southern Hemisphere.)

Alternatively, I expected, they might improvise an absurdly low estimate, which could easily be exposed as unrealistic. After all, I presumed, they wouldn't want to indicate that their planned attack would greatly exceed what any reasonable person would judge were the upper limits to the potential destruction of enemy lives and society that were either required for deterrence or could be justified in a first-strike aimed at limiting damage ourselves

The point of eliciting either of the responses I expected—their admitting ignorance of the human effects of their own plans, or else blatantly underestimating them--was to gain advantage in a bureaucratic effort, discussed later, to change their plans in the direction of my draft guidance. But my expectations were wrong. The Chiefs were embarrassed neither by the question nor by their answer. That was the surprise: that, along with the answer itself. The implications, as I saw them, were literally existential.

I myself at that time was neither a pacifist nor a critic of the explicit logic of deterrence or its legitimacy. On the contrary, I had been urgently working, with my colleagues, to

assure the deterrent capability, in response to the most successful Soviet nuclear attack on the US, to promise retaliation on the full scale of World War II. But planned devastation ten times that total, a hundred times the Holocaust? That aimed-for accomplishment exposed a dizzying irrationality, madness, insanity, at the heart and soul, the organs and fingernails of our nuclear planning and apparatus.

I said earlier that I saw that day how the northern civilized world would end. I might have said, “could” end, or “might,” but that wasn’t the conclusion I drew then. The chart I held in my hand that spring morning seemed to speak to me that any confidence—worse, indeed, any realistic hope--that the alert forces on either side might never be used was ill-founded.

The Americans who had built this machine, *knowing*, it turned out, that it would kill more than half a billion people if it were turned on--and who were unabashed to report that to the president--humans like that would not fail to pull the switch if ordered by a president: or, as provided for by President Eisenhower in his second term, without that order if they thought it appropriate in certain other circumstances.

And the presidents? A few months earlier, Dwight Eisenhower had secretly endorsed the blueprints of this killing machine: and furthermore demanded, largely for budgetary reasons, that there be no other plan for fighting Russians. He had approved the operational plans, despite reportedly being, for reasons I now understood, privately appalled by their implications. And the Chiefs had responded so promptly to the new president’s question about the human impact of our attacks clearly assuming that Kennedy would not, in response, order them to resign or be dishonorably discharged, nor order the machine to be dismantled. (In that, it turned out, they were right.)

Surely neither of these presidents actually desired ever to order the execution of these plans, nor would any likely successor. But they must have been aware, or should have been, of the dangers of allowing such a system—combining these plans and the existing scale of offensive nuclear forces--to exist. They should have reflected on, and trembled before, the array of contingencies—accidents, false alarms, outage of communications, Soviet actions misinterpreted by lower commanders, unauthorized action--that might release these pent-up forces beyond their control: or which could bring about their own previously-unforeseen decision to escalate or to launch a preemptive attack.

Eisenhower had chosen--as would all his successors, from Kennedy to George W. Bush and, so far in his term, Barack Obama--to accept these risks. To impose them on humanity, and all other forms of life.

This was not only-- I felt sure then and have ever since--a product of aberrant Americans or a purely American phenomenon. To be sure, Americans, and American Air Force planners in particular, were the only people in the world who believed that they had won a war by bombing, and specifically (in the Pacific) by bombing civilians. [See my “Hiroshima Day.” [link](#)] In 1944 there were only two air forces in the world—the British and American-- who could so much as hope to do that.

But the nuclear era had put that demonic temptation—to deter, defeat or punish an adversary with a capability to annihilate most of its population--within the reach of a great many nations, ultimately most of them. By that spring, four (soon to be five, now nine) had, at great expense, bought themselves that capability. Humans just like these American planner--and presidents--were surely at work producing plans for attacks on cities in every nuclear weapons state, and would be in the future.

I did, after all, know many of the American planners, though apparently—from this chart-- not quite as well as I had thought. What was frightening was precisely that I knew they were not evil, in any ordinary, or extraordinary, sense. They were ordinary Americans. I was sure they were not different, surely not worse, than the people in Russia who were doing the same work, or the people who would sit at the same desks in later U.S. administrations. I liked most of the ones I knew. Not only the physicists at Rand who designed bombs and the economists who speculated on strategy (like me), but the colonels who worked on these very plans, who I consulted with during the workday and drank beer with in the evenings.

That chart set me the problem, which I have worked at nearly half a century, of understanding my fellow humans—us, I don't separate myself—in the light of this potential for self-destruction of our species and of most others. This likelihood, I feel compelled to say. A near-certainty? Some days I think so, as I did that morning in the White House. Other times not, or I would not have lived as I have and still do, and I would not be using my time to write this account and the ones that will follow.